REMARKS

The Examiner is thanked for the due consideration given the application. The specification has been amended to provide a substitute title. The specification (and the claims) have been amended to refer to a "light-section method" instead of a "light slit method", which represents a better translation from the original German "Licht-Schnitt Verfahren".

Upon entry of this amendment, claims 16-35 are pending in the application. By this amendment claims 36 and 37 are canceled and their subject matter has been generally incorporated into claims 16 and 23, and claims 16 and 23 have been amended to better set forth the invention being claimed. Claims 19, 26 and 27 have also been amended to better set forth the invention.

No new matter is believed to be added to the application by this amendment.

Entry of this amendment under 37 CFR §1.116 is respectfully requested because it cancels claims, addresses a matter of form in the Official Action and places the application in condition for allowance.

The Title

The Official Action asserts that the title of the invention is not descriptive. A substitute title has been provided that is descriptive of the claimed invention.

Rejection Under 35 USC §112, Second Paragraph

Claims 36 and 37 have been rejected under 35 USC §112, second paragraph as being indefinite. This rejection is respectfully traversed.

The Official Action asserts that the term "identifying simultaneously" in claims 36 and 37 is unclear. This limitation (now generally incorporated into independent claims 16 and 23) has been changed to be "at the same time". The claims are thus clear, definite and have full antecedent basis.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

Rejections Based on HANNA et al.

Claims 16-18, 20-22, 29, 30, 32, 33, 34 and 36 have been rejected under 35 USC §103(a) as being unpatentable over HANNA et al. (U.S. Patent 6,714,665) in view of MAHBUB (U.S. Patent 6,961,443). Claims 19, 31 and 35 have been rejected under 35 USC §103(a) as being unpatentable over HANNA et al. in view of MAHBUB as applied to claim 18, and further in view of BAN et al. (U.S. Patent 6,775,403). Claims 23, 24, 27, 28 and 37 have been rejected under 35 USC §103(a) as being unpatentable over HANNA et al. in view of HONGO et al. (IEEE: Face and hand gesture recognition for human-computer interaction). Claims 25 and 26 have been rejected under 35 USC §103(a) as being unpatentable over HANNA et al. in view of HONGO et al., as applied to claim

23, and further in view of MAHBUB. These rejections are respectfully traversed.

The present invention pertains to a method for recording individuals that entails recording with a single optical sensor at the same time at least one subarea of a face and at least one subarea of a hand of the individual to be identified. Three-dimensional special coordinates are determined via optical triangulation such that the single optical sensor (2) is configured to record a surface picture of the face (4) or the hand (5) partially or completely, and the results are evaluated in an evaluating unit. See independent claims 16 and 23.

The present invention also uses a light-section method to obtain a three dimensional surface picture, i.e., a contour, of the object. This contour is evaluated in the evaluating unit (3).

Claim 22 of the present invention sets forth that at least one subarea of the face (4) or the at least one subarea of the hand (5) are recorded repeatedly by the optical sensor (2) in order to record a movement, which is directed at assuring identification. This process lies in the realm of milliseconds.

The optical sensor (2) and the evaluating unit (3) together are configured to provide an imaging method. See claim 27.

First, in MAHBUB, it is notable that the entire disclosure fails to teach or infer the simultaneous utilization

of face and hand parts of the person to be identified. Figures 4 and 7 of MAHBUB, reproduced below, depict different illumination and recording apparatuses, i.e., projectors such as lasers and scanners. Columns 4 and 5 of MAHBUB set forth details of the illumination and recording.

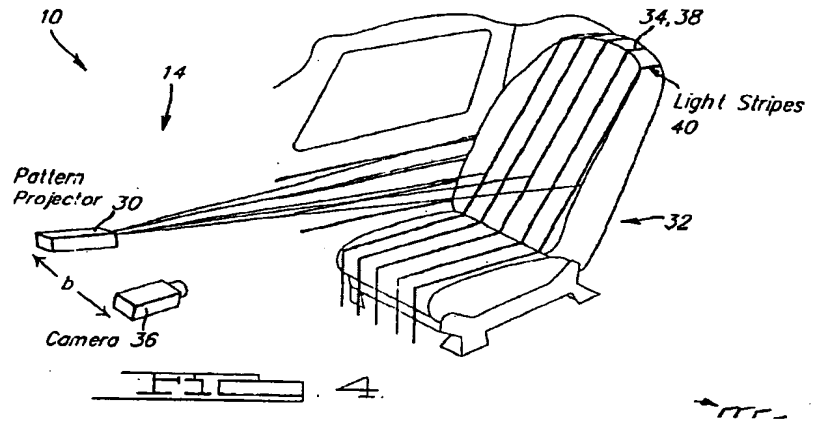

Fig. 4

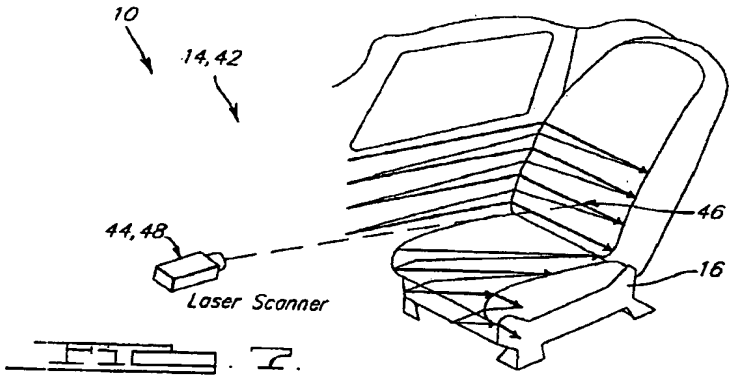

Fig. 7

The Official Action asserts at page 3 that HANNA et al. disclose a process of personal identification where at least a portion of the face and a portion of the hand of the person is identified and evaluated by means of an optical sensor.

However, in Figure 3 of HANNA et al. (referred to in the Official Action) details the stereo detection of a face and tracking of the position of the eye. The Abstract of HANNA et al. describes that the picture of an object is recorded and analyzed. This serves as a means of a wide field view of an object to locate the object in the scene. The different pictures in the immediate area are relatively known, and a higher resolution is obtained.

The technology of HANNA et al. pertains to a fully automatic system for the recording and analysis of pictures, in which the irises in the eyes of living beings are observed. In Figure 3 and column 10, lines 8-29 of HANNA et al., it is noted that many pictures are taken so that a rough wide field position is obtained, and a new picture is then recorded to obtain the details, i.e., visual details. The stereo module 316 delivers an output signal to the processor 310 in the case that the eyes of the investigated person appear in the picture.

Figure 6 of HANNA et al., reproduced below, shows the possible parts of a person that can be identified.

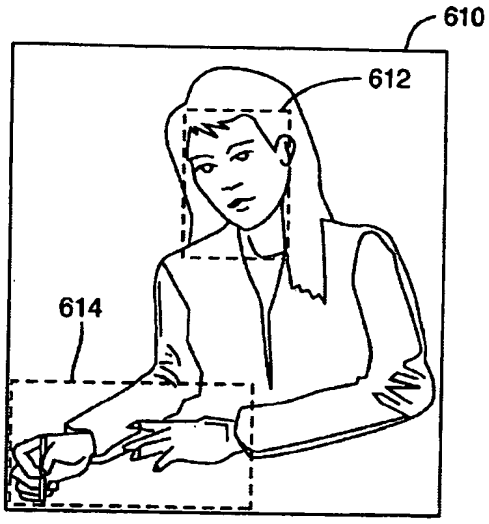

FIG. 6

The text corresponding to Figure 6 can be found in HANNA et al. at column 16, line 42 to column 17, line 3. This passage describes that the stereo module 316 can, for example, discern the right angle region, where the pixel distribution between different regions must be resolved. The goal of the technology of HANNA et al. is the recording of one or more pictures suitable for evaluation, where dark areas are to be avoided. The areas 612 and 614 are, for example, evaluated by the stereo module 316 so as to determine and position the relatively bright and dark areas in the picture.

As a result, HANNA et al. and MAHBUB have fundamentally different objectives and combinations of technologies, as compared to that of the present invention. Neither HANNA et al. nor MAHBUB disclose or infer a process or apparatus for personal identification by the utilization of an optical sensor so that

the processing of a facial part and a hand part of the person allows identification of the person.

Also, the fact that Figure 6 of HANNA et al. shows face and hand parts does not mean the these parts are recorded at the same time by a single optical sensor to obtain a reliable and quick identification of the person. In the Response to Arguments, the Official Action asserts that these features (using different wording) were not recited in the rejected claims. However, these features are clearly set forth in independent claims 16 and 23.

Further, the present invention stores data of the digital picture in a data bank. In contrast, HANNA et al. does not utilize an imager/picture sensor, because the technology of HANNA et al. is directed against a single bodily feature such as an iris or eyebrow.

The references of BAN et al. and HONGO et al. pertain to the identification of schematic symbols, e.g., for software and interactive games, where strongly stylized and simple symbols are required. BAN et al. and HONGO et al. thus belong to a fundamentally different art from that of the present invention.

One of ordinary skill would thus fail to produce independent claims 16 and 23 of the present invention from any combination of HANNA et al. and the secondary references. A *prima facie* case of unpatentability has thus not been made.

Claims depending upon claim 16 or 23 are patentable for at least the above reasons.

Further, the last paragraph at page 2 of the specification and most of page 3 discusses that in addition to a part of the face, the method allows a part of the hand of the individual to be identified also to be recorded by the optical sensor, and to be evaluated by the evaluating unit. This is advantageous in that at least two significantly structured characteristic parts of the body of the individual to be identified are consulted in order to carry out the identification.

This combination elevates the identification reliability of the automatic personal identification as well as shortening the processing time in which the subject must stay relatively still.

The second paragraph at page 3 of the specification describes that a device for implementing the method is designed advantageously such that the optical sensor and the evaluating unit are able to record and identify a part of the face and a part of the hand of an individual to be identified.

As a result, the present invention demonstrates unexpected results that would fully rebut any unpatentability that could be alleged.

These rejections are believed to be overcome and withdrawal thereof is respectfully requested.

Conclusion

The Examiner is thanked for considering the Information Disclosure Statement filed December 20, 2004 and for making an initialled PTO-1449 Form of record in the application.

Prior art of record but not utilized is believed to be non-pertinent to the instant claims.

The objections and rejections are believed to have been overcome, obviated or rendered moot and that no issues remain. The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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